Examiner's Amendment & Reasons for Allowance

Examiner's Amendment

*   An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with _J. Filipek_ on _9/12/08_.

The following has been amended:

The abstract is rewritten as follows:

----In an error detection method of the present invention, target code strings which are inputted in a discontinuous arrangement are subjected to a syndrome operation, and simultaneously, the target code strings which are inputted in a discontinuous arrangement are subjected to a first error detection code operation while correcting the inter-data continuity by skipping the data so that the arrangement of the code strings have continuity. Then, error data positions and error data numerical values of the target code strings are calculated on the basis of a syndrome obtained in the syndrome operation, and only the error data position among the target code strings are subjected to a second error detection code operation again on the basis of the error data positions and the error data numerical values. Using the operation result, the operation result by the first error detection code operation is updated, thereby simultaneously performing ECC processing and EDC processing for the target code strings which are inputted in a discontinuous arrangement.----

Reasons for Allowance

- **Claims 1, 3-4, 6-8, 12-14** are pending and are allowable over the prior art.

- The following is an examiner's statement of reasons for allowance:

The prior art of record is exemplified by (USPGPubN 20010014960- IDS of 5/12/2006)

to **Ohyama et al.** and (USPN 6131178) to **Fujita et al.**

These references disclose a data processor comprising error detection and correction for

data wherein provided are ways of skipping error correction when no error is detected or when

the capability of the error correction code is exceeded: **in Ohyama et al.,** e.g., '*in the calculation*

of the error-correction syndrome by PO direction error-correcting circuit 3032, if codewords in

column 3 (COL3) have no error, subsequent detection of an error amount and an error position

is skipped. According to this, in the ERROR syndrome calculation, the speed of operation is

enhanced by using offset values for the codewords without error as shown in FIG. 40.'

Alternatively, in Fujita et al., e.g., '*FIG. 10 is a flowchart illustrating the processing*

procedure of a thus schemed embodiment 4 of the error correcting decoding method of the

extended RS code in accordance with the present invention. In FIG. 10, ST11 designates an error

number estimating step which differs from its counterpart of the embodiment 3 shown in FIG. 8

by the same reference character in that it makes a decision in estimating the error number from

the syndromes computed in the syndrome generating step ST11 whether any errors are present

or not, and if there are any errors, whether the error number is less than [(d-1)/2], equal to [(d-

1)/2], or greater than [(d-1)/2]. ST16c designates a decision step, as the steps ST16a and ST16b,

of making decisions of the processing to be executed from then on in accordance with the

estimation results in the error number estimating step ST12. It is provided for skipping the

Euclidean algorithm computing operation and the Chien's search operation when the error

number is greater than [(d-1)/2]'

However these references do not teach or suggest the combination of claim elements for

error detection comprising error detection code skip operation step,

'*wherein said error detection code skip operation step receives error detection*

codes of the target code strings which have been inputted by the last time, and performs a

skip operation for skipping a predetermined number of bytes in non-final rows in the

sector among the target code strings, and performs an individual skip operation for

skipping a number of bytes according to column positions where data exist, in a final row

in the sector: and

said individual skip operation is performed by utilizing, plural times, the

operation result of the skip operation which are executed in a specific column position

among the column positions where data exist. '

*   Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee.   Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

CONCLUSION

*   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (571) 272-

3826. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques, can be reached at (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Guy J Lamarre/
Primary Examiner, Art Unit 2112